



MISSION The mission of the AKC Canine Health Foundation is to develop significant resources for basic and applied health programs with emphasis on canine genetics to improve the quality of life for dogs and their owners.

DISCOVERIES



AMERICAN KENNEL CLUB
CANINE HEALTH FOUNDATION

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Merle Gene Found at Texas A&M University

Researchers at Texas A&M University (TAMU) have recently published an article describing their identification of the genetic mutation that causes merle coat color patterning in breeds such as the Shetland Sheepdog (Sheltie), Collie, Welsh Corgi, and Great Dane.

The work was done in Dr. Keith Murphy's laboratory at TAMU's College of Veterinary Medicine. Dr. Murphy and his staff of graduate students and postdoctorates have received numerous grants from the AKC Canine Health Foundation for genetic research into diseases such as deafness, pancreatic acinar atrophy, Pug Dog encephalitis and canine aging and life spans. The Murphy group has also been instrumental in developing research tools such as the multiplexing of specific microsatellite markers to enhance the efficacy of whole genome screens in disease gene detection. Dr. Leigh Anne Clark is the postdoc who, along with doctoral student Ms. Jacquelyn Wahl, carried out the merle research with Dr. Christine Rees, a veterinarian who made seminal contributions to this work.

Growing up in Austin, Texas, Leigh Anne and her two older brothers shared their home with two Shelties, one sable and the other merle.

Leigh Ann also earned spending money by working for a Sheltie breeder, assisting with everything from grooming to whelping litters. Jacquelyn owns a double merle Australian Shepherd.

After receiving her BS in Biomedical Sciences from TAMU, Leigh Anne decided to pursue a Ph.D. in genetics and was recruited by Dr. Murphy to work in his lab. As Leigh Anne's advisor, Dr. Murphy assigned her to work on the multiplexing project, as well as run the first screen for detection of the causative gene for pancreatic acinar atrophy in the German Shepherd Dog. Leigh Anne was the first author on a paper that came from this research where linkage analysis was conducted in an effort to narrow the search for potential candidate genes.

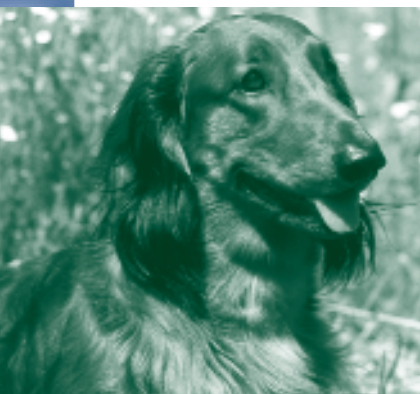


Merle Gene Found continued from page 1

Leigh Anne was subsequently assigned to work on dermatomyositis (a skin and muscle disease) in Shelties and Collies. This project was the first collaboration between the Murphy lab and Dr. Rees. As the current owner of a Collie, and because of her love of Shelties, this was a perfect project. Leigh Anne set about working with the other investigators on the project to collect samples, pedigrees and other data that would make finding the causative gene a realistic prospect. In 2005, Leigh Anne recognized that the merle gene had not been identified and that she had a wealth of information on both merle and non-merle Shelties, so she and Jacquelyn began working to identify the merle gene.

The color pattern merle (also known as dappling) is characterized by darker "blotches" on a lighter background of the same pigment (e.g., blue merle in Collies, red dapple in Dachshunds).¹ This trait is sometimes associated with congenital defects such as deafness and ophthalmologic abnormalities, such as microphthalmia (a congenitally

small eye). Heterochromia iridis (a difference in color of the iris in the two eyes, or two different colors within one iris) has also been associated with merle coloring, and is a disqualification for several breeds. An autosomal, incompletely dominant trait, merle coat coloring predisposes dogs to inherited deafness. When inherited in the homozygous state, the merle mutation causes dogs to be white and have an even greater incidence of deafness, blindness and sterility.²



The auditory and ophthalmologic abnormalities linked to merle are similar to those observed for the human auditory-pigmentation disorder Waardenburg syndrome. Characterized by varying degrees of hearing loss and changes in skin and hair pigmentation, another common trait is two differently colored eyes. Researchers have identified causative mutations in at least five genes for Waardenburg syndrome; however, the genetic bases for all cases have not been determined.

A microsatellite marker that segregates with the merle phenotype in the Sheltie was identified using linkage disequilibrium (the measurement of co-segregation of alleles in a population, or non-random association of alleles at two or more loci not necessarily on the same chromosome). This region of the human genome contains SILV, a gene important in mammalian pigmentation. Therefore, SILV was evaluated as a candidate for merle patterning.

Upon evaluation, a short genetic insertion was found in SILV which matched the merle phenotype in multiple breeds. Interestingly, several deletions were identified in that insertion and permit normal (or non-merle) pigmentation. In other words, merle dogs have a mobile bit of DNA within their SILV genes and this is responsible

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The AKC Canine Health Foundation will achieve the following goals:

- To help dogs live longer, healthier lives.
- To respect the dedication and interest of dog clubs, breeders and owners in health and continuously seek ways to involve them in the work of the Foundation.
- To identify health issues of concern to dog breeders and owners.
- To identify and sponsor research and education programs, with particular emphasis on canine genetics, that:
 - Meet the highest scientific and educational standards
 - Have the greatest potential for advancing the health of dogs
 - Have expectations for producing materials and applications that are reasonable and affordable for breeders and owners
- To seek ways to integrate the observations and knowledge of dog owners, breeders and veterinarians and other scientists for the purpose of advancing the health of dogs.
- To responsibly monitor grantees and make the results of their work available for public use through publication in scientific journals, and through sharing and dissemination of information and education with dog owners, breeders and veterinarians.
- To raise endowment funds for the Foundation's programmatic purpose, and to invest these funds for both growth of principal and income adequate to advance the Foundation's purpose.

What You Should Know About Canine Dental Problems (Part 2)

Sandra Manfra Marretta, DVM, Diplomate ACVS, AVDC
University of Illinois

Recognizing and treating canine dental and oral problems is an important part of successful management of canine health. Many dental and oral lesions occur frequently in dogs but may have a variety of presentations and treatment options.

Periodontal Disease

Periodontal disease is the most common disease affecting dogs today. The common clinical presentations of periodontal disease in the dog include mobile teeth, periodontal and periapical abscesses with secondary facial swelling, gingival recession and furcation exposure, mild to moderate gingival hemorrhage, and deep periodontal pockets with secondary oronasal fistulas resulting in a secondary chronic rhinitis. Less frequently, severe gingival sulcus hemorrhage, pathologic mandibular fractures, painful contact buccal mucosal ulcers, intranasal tooth migration, and osteomyelitis have been reported.

The treatment of periodontal disease is based on one major factor: a clean periodontium results in a healthy periodontium. There are numerous treatment modalities associated with the management of periodontal disease. These treatment modalities include: supragingival and subgingival scaling, root planing, subgingival curettage, polishing/irrigation, gingivectomy, open-flap curettage with augmentation of bony defects, treatment of endodontic/periodontic

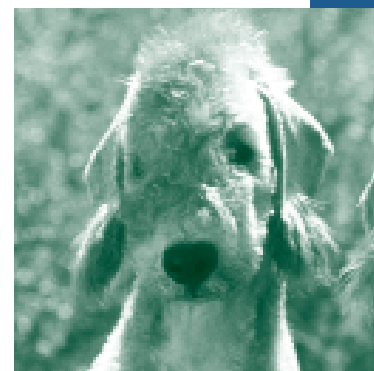
lesions, perioceutics, exodontia, oronasal fistula repair, and home care. Prior to administration of various treatment modalities for periodontal disease a thorough assessment of the patient's general health status is mandatory. Many animals with periodontal disease may have concurrent problems including diabetes, cardiopulmonary problems, hepatic, renal, and other metabolic problems. Once these diseases are recognized and managed appropriately, anesthetic protocols can be selected based on the individual patient's requirements.

Endodontic Disease

Endodontic disease refers to disease of the pulp, the inner aspect of the tooth. Dental trauma with or without pulpal exposure is the most common cause of endodontic disease in dogs. The canine teeth and the maxillary 4th premolars are the most frequently fractured teeth in dogs. Depending on the amount of tooth structure fractured off, the pulp may or may not be exposed. A dental explorer is used to determine if the pulp has been exposed.

Fractured teeth are often noted as an incidental finding on physical examination. However, a series of events may occur in some fractured teeth with exposed pulp which can result in significant clinical presentations. This series of events includes the following conditions: (1) exposed pulp, (2) bacterial

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SPOTLIGHT ON GENETIC TESTS: COPPER TOXICOSIS

Copper toxicosis is a severe liver disease caused by copper accumulation. Essentially, the liver fails to expel dietary copper, which leads to a build up of the toxic metal causing illness and potentially death. In Bedlington Terriers, CT is inherited as an autosomal recessive trait. Researchers at the Animal Health Trust and the University of Nottingham, both in England, have determined a mutation (MURR1) that is causative for CT.

Samples should be submitted as cheek swabs, available free of charge from the AHT. Enquiries should be made to Ms. Vikki Lett vikki.lett@ah.t.org.uk.

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pulpitis, (3) pulp necrosis, (4) periapical granuloma, (5) periapical abscess, (6) acute alveolar periodontitis, (7) osteomyelitis, and (8) sepsis.

The time required for this progression varies from months to years. When a tooth is fractured and the pulp is exposed the pulp will bleed. Pulpal exposure is extremely painful and animals with an acutely fractured tooth with pulpal exposure will hypersalivate, be reluctant to eat, and exhibit abnormal behavior. Over several months the pulp becomes necrotic and

the animal is no longer painful until an inflammatory reaction occurs around the apex of the tooth at which time the animal becomes painful again. An endodontically diseased tooth is not only painful but it also is a potential source of infection for other parts of the body. An endodontically diseased tooth may

present clinically as a discolored tooth which is painful on percussion. Soft tissue fistulas may occur secondary to endodontic disease. These fistulas are usually located apical to the mucogingival line. Endodontically diseased teeth may present with severe maxillary or mandibular swelling. Endodontically diseased teeth may also cause nasal discharge or hemorrhage or ophthalmic signs. All endodontically diseased teeth should be either treated or extracted.

Benign and Malignant Oral Masses

Oral tumors occur frequently in dogs and cats. Oral tumors account for approximately 6% of all malignant tumors in dogs with malignant cancer of the mouth and pharynx. Oral tumors may be benign or malignant. Unfortunately, diagnosis of oral malignancies frequently occurs when the tumor is quite advanced, necessitating more extensive treatment. Thorough oral examination during routine physical examinations and during dental procedures can permit early detection of oral

tumors providing patients with a better prognosis. Early diagnosis of oral tumors, appropriate staging, wide surgical resection and alternative treatment modalities can improve survival time.

Non-neoplastic reactive lesions that occur as a result of chronic low-grade irritation such as focal fibrous gingival hyperplasia and pyogenic granulomas occur at the gingival margin and are treated with a gingivectomy and treatment of the underlying cause of the inflammation which is most frequently periodontal disease. Sublingual and buccal mucosal areas of excessively loose mucosal folds that are indurated and hyperplastic secondary to repeated self-inflicted trauma have also been described as “gum-chewers lesions” because the behavior of dogs with these lesions may mimic that of a person aggressively chewing gum. These lesions may become quite large and may be painful when they are repeatedly traumatized by chewing on the lesions with the molar teeth. When these lesions become ulcerated and become a source of pain for the patient surgical excision is recommended. The resected tissue should be submitted for histopathologic evaluation to rule out the presence of neoplasia.

Malignant oral tumors require more aggressive surgical treatment to help prevent local recurrence including various partial mandibulectomy and maxillectomy procedures depending on the location of the oral tumor. It is important to properly stage all dogs suspected of having malignant oral tumors to rule out distant metastasis.

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- (1) Manfra Marretta S: The common and uncommon clinical presentations and treatment of periodontal disease in the dog and cat. *Seminars in Veterinary Medicine and Surgery (Small Animal)* 2:230, 1987.
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- (3) Manfra Marretta S. Dentistry and diseases of the oropharynx. In: Birchard SJ, Sherding RG (eds): *Saunders Manual of Small Animal Practice*, 2nd ed., WB Saunders Co., Philadelphia, 2000; 702-725.
- (4) Dhaliwal RS, Kitchell BE, Manfra Marretta S. Oral tumors in dogs and cats. Part I. Diagnosis and clinical signs. *Comp Cont Educ Pract Vet* 1998; 20(9):1011-1022.
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UPCOMING EVENTS

JULY 29, 2006

UNIVERSITY OF FLORIDA BREEDERS & OWNERS SYMPOSIUM

Gainesville, FL

Visit www.doce-conferences.ufl.edu/Dog/
for information and registration.

AUGUST 19 & 20, 2006

AKC AND AKC CANINE HEALTH FOUNDATION BREEDERS' SYMPOSIUM

Branson, MO

Watch for additional information coming
your way soon!

SEPTEMBER 14-17, 2006

GENES, DOGS & CANCER: IV CANINE CANCER CONFERENCE

Chicago, IL

Visit [guest.cvent.com/i.aspx?1Q,M3,
496298ce-825d-42b5-8da8-ae7c3d7e9800](http://guest.cvent.com/i.aspx?1Q,M3,496298ce-825d-42b5-8da8-ae7c3d7e9800)
for information and registration.

DECEMBER 1, 2006

ANNUAL AKC CANINE HEALTH FOUNDATION GALA

Long Beach, CA

Watch for additional information coming
your way soon!

Breed Health Surveys That Work

D. Caroline Coile, Ph.D.

What are the most important health problems in your breed? If you're like most owners, your idea of the most important problem is the one your own dog has had. Yet that may or may not be an important problem for the breed overall. The only way to get a true idea of a breed's health is to collect data and do statistical analysis. Several representatives discussed the challenges of breed surveys at the AKC Canine Health Foundation Parent Club Conference in October, 2005.

Preparing a breed health survey entails several steps, the first of which is anticipating problems and establishing goals. Dr Elsa Sell, President of the Bearded Collie Foundation for Health, cautions that coming up with new goals in the middle of a project will confuse participants and wreak havoc with the data.

The design of the survey is vital to its success. An overly long or confusing survey will not be completed. Dr Sell recommends that the survey form use



correct medical terms rather than common disease names. The Canine Health Foundation (www.akcchf.org) has available surveys created by the AKC Delegates Canine Health Committee, as well as samples of successful surveys used by other clubs. These surveys include codes for diseases and how they are diagnosed (for example, by self, breeder, veterinarian, second opinion, or laboratory test), and also ask for age of onset of each disorder. They allow respondents to include opinions as well, both free form comments and beliefs about what they feel are the breed's most important disorders. Once a questionnaire is designed, it should be tested among a subgroup of owners and then tweaked to accommodate their concerns.

Even before the survey is available, it should be publicized. Club websites, online chat groups, word of mouth, and newsletter announcements stressing the survey's importance and ease of completion should be utilized. A survey that is anticipated is more likely to be completed than one that arrives as a surprise.

The bane of all poll takers is getting an unbiased sample. In an ideal world, every owner of your breed would reply. In the real world, many reasons conspire to prevent this. First, how will you find them? Mailing only to club members will not

reach the often huge proportion of owners who do not belong to any clubs. Posting on the website and announcing it on chat groups will help, but will only reach those already with a greater interest in the breed than most pet owners have.

Although the AKC cannot share the names and addresses of owners registering a dog of a particular breed, they will, for a fee, do a mailing to them. The Westie Foundation of America makes use of the AKC to send out health surveys to all 6,000 West Highland White owners in the United States every six or seven years. Wayne Kompare, President of the Westie Foundation, sums up the importance of reaching every owner. "Our constituency is all Westies, everywhere. I don't care if a Westie came from a puppy mill, a backyard breeder, or the most reputable breeder in the club. If that Westie has a health problem, it's our concern."

Response rates are low for any survey, and ones dealing with canine health are no exception. Typical rates are from 35 to 50%, according to Susan LaCroix Hamil, a director of the AKC Canine Health Foundation.

Owners neglect to return surveys for several reasons besides the survey being too long or confusing. Sometimes it's simply the bother of addressing an envelope, something easily prevented by enclosing a pre-addressed envelope. People with healthy dogs may think their information isn't important, so it must be made clear that all dogs are equally important when compiling data. Many owners simply forget; sending a

postcard or a second survey to non-responders will often reel them in.

Although not such a concern in pet owners, competition dog owners and breeders may not respond because they fear their dog or line will be stigmatized by other breeders if they admit to health problems. Surveys that require dog's names or pedigrees, or owner's names, do not have a large or unbiased

response. It must be made clear that no identifying tracking marks are on the forms, and the responses should be sent to a disinterested third party with no involvement in your club or breed. This means you may have to pay somebody to collect



the data, or interest a university in your project. Another possibility is to trade data analysis duties with a club of similar size.

Mike Wahlig, President of the Poodle Club of America Foundation, stresses that the club should let participants know beforehand how the information collected will be used. The club cannot change its distribution or use of the information later or it risks not only losing participant confidence, but being sued. If identifiable information is to be used, you must obtain written releases.

Don't go about your survey as though you'll never do another. Health problems are dynamic. Once you identify the major ones your breed is in a better position to fight them. Only by doing another survey will you know how successful you were or if another problem is coming to take its place. So make sure respondents (and even non-respondents) hear about the results as quickly as possible. Publicize them as thoroughly as you did the initial survey. Those who participated will feel rewarded, and those who did not may feel left out; either way, both will be more likely to respond next time.

Finally, use your data. Has a disease been identified as a major problem? Use the momentum from interest in the survey to raise money to fund research into finding a genetic marker or better treatments for that disease. Your breed may have a devastating problem that has gone unrecognized heretofore; only with the hard data from your survey will owners be motivated to fund research into it. After all, a survey makes clear that their dog could be next.



On Supporting Breed Specific Research

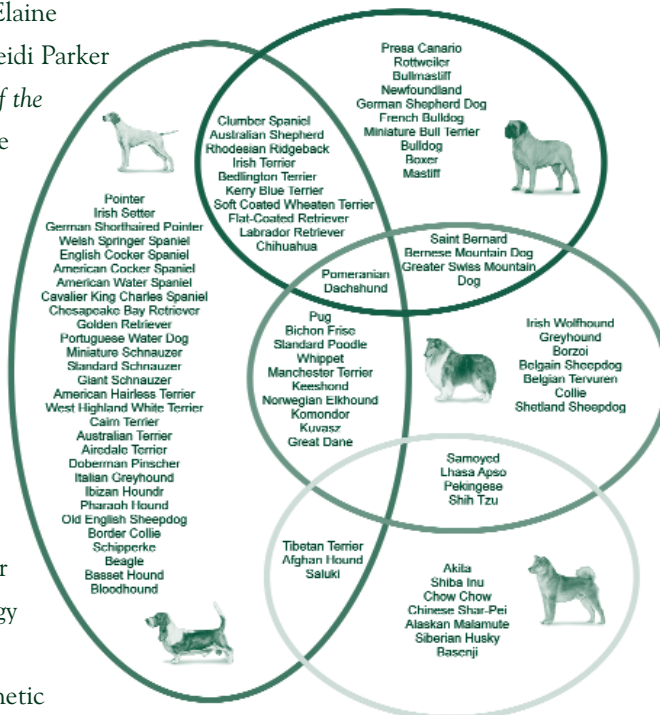
Very often, the AKC Canine Health Foundation receives research applications for projects that will be useful for a specific breed, family of breeds, or even a group of breeds that are seemingly unrelated. Most of the time, the Board approves these projects pending support from the clubs of breeds that will benefit from the research.

For projects that help a single breed or family of breeds, supporting the grant is an easy sell, as long as the health issue addressed is of concern for the breed. The projects that benefit a group of breeds that may or may not be related (we classify these studies as “all breed”) are only slightly different. These tend to deal more with a disease that affect a large number of breeds such as cancer, thyroid disorders, epilepsy, etc. whether it be through causative genetics or a therapeutic study. As such, any breed that suffers from the disease could potentially benefit from the results of the research.

But what about the breed-specific project that deals with a disease that actually affects many breeds? With the advent of the canine genome sequence, even a breed-specific study has the potential to be much more far-reaching than expected.

Dr. Kerstin Lindblad-Toh of the Broad Institute has said that, while she is more certain that related breeds share the same risk factors for disease, there is still a great deal of evidence of sharing risk factors among breeds from different groups. Then again, how certain are we of the relatedness of breeds?

In 2004, scientists from Dr. Elaine Ostrander’s lab led by Dr. Heidi Parker published *Genetic Structure of the Purebred Domestic Dog* in The Journal of Science. This phylogeny (developmental history) project studied the genetic relationships in a diverse collection of domestic dog breeds. Four genetic clusters were identified (see chart), which predominantly contained breeds with similar geographic origin, morphology (form and structure), or role in human activities. This genetic classification of dog breeds ultimately will aid in all genetic studies. Dr. Parker has continued with this work, and expects to publish additional information later this year.



Continuing the Journey...

Last year’s “Double the Dollars for Dogs” Endowment Campaign was hugely successful and succeeded in adding \$1.6 million to the Foundation’s endowed funds. Our individual and corporate donors as well as Parent and All Breed Clubs stepped up to the plate to meet the matching funds donated by our founder, The American Kennel Club.

In 2006, the Foundation is poised to launch another major fundraising effort – and we’re once again counting on your financial leadership and support. Our ongoing goal is to *change our world through canine health research* and in that vein, the Board of Directors of the Canine Health Foundation has approved an annual fundraising effort. Annual campaigns are designed to provide funds for basic program operations and normal growth within the organization. A strong annual fund will ensure that the grants and research you support are administered in the most efficient and effective manner.

The Ambassadors Club will recognize those donors who participate in our Annual Fund campaign. The Foundation Board and Staff have established a wonderful list of benefits and membership levels which will appeal to every level of giving. We encourage you to “continue the journey” with us this year. So look for more information arriving in your mailbox soon!

Specific Breed Research

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The phylogeny study provides the argument for clubs to continue (or begin) to sponsor research not specific to their breed. It is widely accepted that the Alaskan Malamute and the Siberian Husky are related, but who would have thought that the Chihuahua would genetically group with the Labrador Retriever or Rhodesian Ridgeback? And who would have predicted that the Doberman Pinscher, Old English Sheepdog, Westie and Bloodhound would have ended up in the same genetic group?

Dr. Parker's research grouped related breeds together; logically, therefore, research advances in one of these breeds should ultimately benefit the others, as they are genetically related. Research is changing; there are better tools and improved methods for determining causative mutations for disease. Perhaps it is time for breeds related to those under study to consider playing a greater role in supporting research that benefits them indirectly, but with profound potential.



(For an electronic copy of this article, please contact

Erika Werne, Director of Canine Research & Education for the AKC Canine Health Foundation, eaw@akc.org or 888.682.9696.)

We're pleased to announce that the AKC Canine Health Foundation's annual *Gala by the Gulf* event was a huge success and one of the largest fundraisers in the history of the CHF. In total, the event garnered close to \$130,000 in proceeds to benefit canine health research. Guests, donors, and longtime supporters of the Foundation gathered Friday night, January 13, 2006, in Tampa, Florida, for the annual gala. Guests were treated to an elegant evening of music, dinner, and fun and were encouraged to donate to canine health through the silent and live auction.

It was another banner year in the "Windy City" as the AKC Canine Health Foundation welcomed the proceeds from the Purina Parent Club Partnership Program and partial entry receipts from the International Kennel Club (IKC) annual cluster. Held February 24-27, 2006, the event culminated with the Purina Invitational Ball where collectively, Nestlé Purina and the IKC presented the foundation with over \$260,000 for canine health research. For nine consecutive years, the two organizations have collaborated to raise funds for the AKC Canine Health Foundation.



"We are pleased to announce that Stuart Eckmann, Howard Falberg, Karen Mays, and Melanie Steele have been elected to serve on the AKC Canine Health Foundation Board," says Wayne Ferguson, president of the Foundation. "Each of these dog fanciers brings a wealth of knowledge, skills, and enthusiasm to the Board of Directors; we are looking forward to working with each of them as we continue our journey in support of canine health research."

Congratulations to the Keeshond Club of America, who have agreed to sponsor Grant 631: The Genome Wide Search for the Genetic Cause of Primary Hyperparathyroidism in the Keeshond, from Dr. Richard Goldstein at Cornell University. KCA is utilizing more than \$45,000 from their Donor Advised Fund to support this important research project!

Kudos

It was a wonderful night of friends and food as AKC Canine Health Foundation supporters Ruth Pereira and Don Fontenelli hosted the first ever CHF Westminster Cocktail Reception. CHF Board members and supporters braved the New York blizzard to attend the intimate party at the Affinia Manhattan ballroom. Guests were treated to wonderful food and drink as they anticipated the upcoming Westminster whirlwind. All told, the Foundation raised over \$4,500 all of which will continue to fund the research that is so important to our canine companions.

Cheers

Thanks

Donor Advised Fund Program

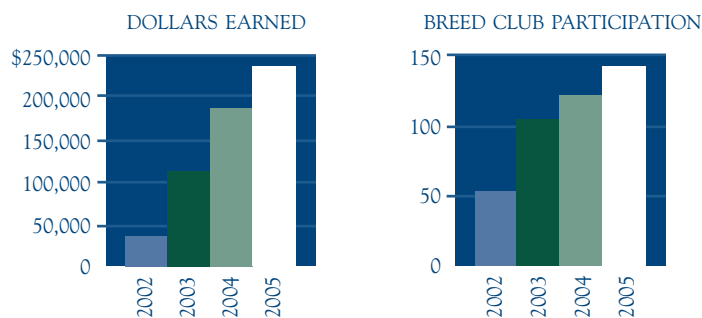


For the fourth consecutive year, Nestlé Purina PetCare Company has offered breed clubs an avenue to support canine health research through their innovative Purina Parent Club Partnership Program (PPCP). This program, created in 2002, encourages Parent Clubs to sign up with the Purina Breeder/Enthusiast Group. Individual club members redeem weight circles from bags of participating Purina brand dog foods. Purina tracks these weight circle submissions, and for every \$100 of qualifying weight circle points earned by ProClub members, Purina donates \$10 to the participating Parent Club. The PPCP program requires that 50 percent of each of the Parent Clubs' earnings be donated to the Canine Health Foundation through the CHF donor advised fund program – and this year, that represented over \$242,000 in earnings that the Foundation received! The remaining 50 percent is to be used by the Club for education, rescue or additional canine health research. (For more information on the PCPP program, please call toll free, 1-877-PRO-CLUB or visit www.purinaproclub.com).

"Purina is proud to show our commitment to dogs' health not only through the dog food products we develop, but also through our commitment to help fund the valuable research needed for our most trusted companions," said Steve Remspecher,

Nestlé Purina's Director of Marketing for its Breeder/Enthusiast Group. "By supporting the Canine Health Foundation, we've led the charge to map the canine genome and against canine diseases like cancer and epilepsy and together, we're building a better future for our dogs."

Over the last four years this program has generated around \$1.2 million for Parent Clubs. The Canine Health Foundation has received \$598,737.87 for research that is administered through the donor advised fund program.



The donor advised fund program allows contributions to health research that will advance the health of a particular breed, a specific disease or benefit the general canine population. Contributions can be made by individuals, clubs or corporations.

For more information on the donor advised fund program please contact the CHF office at 888.682.9696. Also, ask for a copy of CHF 2005 Annual Report.

Merle Gene Found continued from page 2

for pigmentation, and is also associated with impaired function of the auditory and ophthalmologic systems.

This discovery is important because of the health issues that are associated with the merle coloring; this work may help explain the "cryptic" merle. While useful in breeds such as the Collie or Australian Shepherd, this is even more valuable in breeds in which the range of acceptable phenotypic coat colors is broad, such as the Pomeranian or Chihuahua, in which some of the colors may mask the presence of the merle genotype. In breeds that produce small litters, knowing the genotype of the parents will be advantageous in avoiding auditory and/or ophthalmologic defects. Additionally, this will provide researchers with the

launch point for identifying the function (s) of SILV, thereby ultimately shedding light on hearing, sight and pigmentation disorders that affect both dogs and humans.

The patented genetic test for merle is now available through the Canadian company, Vita-Tech, which carries out tests for merle in multiple breeds. More information on Vita-Tech can be found at <http://www.vita-tech.com/home.cfm>.

¹ Taken from *The Complete Dog Book* (19th Edition)

² Ackerman, L. *The Genetic Connection*. p. 132-133

(For an electronic copy of this article, please contact Erika Werne, Director of Canine Research & Education for the AKC Canine Health Foundation, eaw@akc.org or 888.682.9696.)

Vanacore Elected Chair of AKC Delegate Health Committee

Connie Vanacore is an original member of the AKC Delegate Health Committee, which was formed in 1983. She was elected chair of that committee in April 2006 after the post was vacated by newly elected AKC Board member Dr. William R. Newman.

The AKC Delegate Health Committee works closely with the AKC Canine Health Foundation. The committee gathers and shares with the Delegates scientific information vital to the improvement of canine health and recommends to the Delegates educational programs, procedures and research relevant to canine health.



"It's a very productive committee and consists of a group of intelligent, dedicated, knowledgeable people from different backgrounds whose energy we've channeled to benefit canine health and our constituents – the AKC Delegates," Newman said. "We have a well-oiled, well-functioning machine, and Connie is the person to keep that machine running."

"She knows the health issues. She has the experience and track record of doing wonderful work. She is punctual, and her work is impeccable," Newman added.

"We're a good group with good ideas, and we will keep the momentum going for all the projects we initiate" Vanacore said of the committee. "We will continue to reach out to the Delegates with information supported by the AKC Canine Health Foundation and other resources available to us."

"The AKC Canine Health Foundation has been very important and influential in bringing issues of canine health not only to the fancy but to the public," said Vanacore, AKC Delegate for the Irish Setter Club of America Inc. (ISCA). "In 10 short years, the Foundation has made remarkable progress."

"Visionary research initiatives promoted by the Foundation and especially by its late Treasurer and Grants Committee Chair Bob Kelly have enabled the Foundation to attract the top scientists in the world," said Vanacore. "They have a remarkable cancer team. The Foundation has been the envy of others in canine health research for their ability to attract eminent researchers to their projects."

A renowned dog fancier who competes in show and field events, esteemed breeder and award-winning author and co-author of seven books, including *The Official Book of the Irish Setter* and *The Winning Edge* (co-authored with George Alston,) Vanacore started her dog career at the age of 6.

"My grandfather bought a Maltese from a street vendor for \$2," Vanacore said. "I took him to the Bloomingdales' pet show and won second place. Of course, I thought I'd won Westminster!"

She and her husband, Fred, have owned and bred Irish Setters for 50 years. A past president of the ISCA and recipient of the ISCA's prestigious E.I. Eldredge Memorial Award, Vanacore founded the ISCA health committee, which has been well-received. She is also a Director of the ISCA Foundation which funds most of its research through the AKC Canine Health Foundation.

"I've had experience with major health problems. For instance, in my line there were dogs that had epilepsy, and we owned English Cockers who developed PRA (progressive retinal atrophy)." Vanacore said. "It is gratifying to be influential in work which helps the health of dogs I love."

"We keep supporting the science," Vanacore said of the AKC Delegate Health Committee and the AKC Canine Health Foundation. "The support of AKC and the AKC Canine Health Foundation provides funds necessary to move towards better health of purebred dogs. Through that research all dogs benefit."

Helpful Hints

Traveling With Your Dog (Part 1)



Taking your dog on the family vacation can make for a great trip, if you plan carefully. Are you traveling by car, plane, train, bus or boat? How long with the trip take? Will you be staying with family or friends, or at a hotel or motel? Is your dog in good health? These are some of the questions you will need to answer to make your trip safe and fun.

Safety

A crate or harness that attaches to the seat belt should be used for your dog's safety when traveling. Crates and harnesses are available from most pet supply stores. Be sure to provide plenty of water and a favorite toy to make your dog as comfortable as possible. Also be sure the crate:

- Is large enough to allow the dog to stand, turn and lie down
- Is secured to the vehicle
- Is strong, with handles or grips, and free of interior protrusions
- Has a leak-proof bottom covered with plenty of absorbent material
- Has ventilation on opposing sides, with exterior rims of knobs to prevent blocked airflow
- Has a "LIVE ANIMAL" label, arrows upright, with owner's name, address and phone number

By Car

When traveling by car, be sure to keep your dog comfortable. Bring along a favorite toy to make your dog feel secure.



If it's hot, open car windows to provide sufficient ventilation. Do not let your dog stick its head out of the window; this may lead to eye or ear injuries. Also, do not let your dog travel in the back of an open pick-up truck. Your dog could be injured in an accident.

To help prevent motion sickness in your dog, take several short trips in the car before your journey. Also, feed your dog lightly before the trip, about 1/3 the normal amount.

By Plane

When traveling by plane, plan to visit your veterinarian before your trip. Certification of health must be provided no more than 10 days before travel.

Rabies and vaccination certificates are also required. Your dog should be at least 8 weeks old and weaned.

Airlines make it clear that it is the owner's responsibility to verify the dog's health and ability to fly. Ask your veterinarian if it would be best for your dog to be tranquilized for the trip. Also be sure to check the temperature of the flight's starting point and destination; it may be too hot or too cold to be safe for your dog.



Federal regulations prohibit shipping live animals as excess baggage or cargo if an animal will be exposed to temperatures that are below 45°F or above 85°F for more than four hours during departure, arrival, or while making connections.

Remember that each airline has its own variations on regulations and services. For example, if your crate doesn't meet its requirements, the airline may not allow you to use it. They may, however, allow your dog in the passenger cabin if your crate or carrier fits under the seat in front of you.

When making your reservations, you must make reservations for your dog. There are restrictions on the number of animals permitted. They are accepted on a first-come, first-served basis.

Call your airline well in advance of your trip to inquire about their policies.

Taken from the AKC publication "Canine Travel Tips," which is available from the AKC Customer Service Department, 919-233-9767 or orderdesk@akc.org.

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CANINE HEALTH FOUNDATION



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CONTACT US

FINANCIALS:

Deborah (DD) A. DiLalla, MBA, Executive Director

RESEARCH & EDUCATION:

Erika A. Werne, MIM, Director of Canine Research & Development

Ronna E. Dornsife, MS, Research Grants Administrator

DEVELOPMENT & COMMUNICATIONS:

Jeff Sossamon, MBA, Director of Development

DONATIONS:

Nicole Asbury, Donor Relations Coordinator

GENERAL:

Rita Y. Gardner, Executive Administrative Assistant

Betty Moore, Administrative Assistant

WEB: www.akcchf.org

TOLL FREE: 888.682.9696

EMAIL: info@akcchf.org

WRITE: AKC Canine Health Foundation
PO Box 37941
Raleigh, NC 27627-7941

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Reliant Park Dog Show; Houston, TX

August 3 – 6, 2006

Advances in Canine & Feline Genomics; Davis, CA

August 25 – 29, 2006

Central Veterinary Conference; Kansas City, MO

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...Remember, your American Kennel Club Registrations aid in the fight against canine disease. Last year alone, our founders, the AKC supported \$1.6 million in canine health initiatives. Contact us for more information about AKC contributions to the CHF.

PO Box 37941
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